IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

THE ERICA P. JOHN FUND, INC.,	§	
On Behalf of Itself and All Others Similarly	§	
Situated,	§	
Plaintiffs,	§	
v.	§	No. 3:02-CV-1152-M
	§	
HALLIBURTON COMPANY and	§	
DAVID J. LESAR,	§	
	§	
Defendants.	§	

MEMORANDUM OPINION AND ORDER

Before the Court is Plaintiffs' Motion for Class Certification [Docket Entry #341], Defendants' Response and Brief on Price Impact [Docket Entry #572], and Plaintiffs' Price Impact Memorandum [Docket Entry #594]. For the reasons stated herein, the Court **GRANTS in part** Plaintiffs' Motion for Class Certification, only with respect to the alleged corrective disclosure of December 7, 2001, and **DENIES** Plaintiffs' Motion for Class Certification as to the other five corrective disclosures on which Plaintiffs rely.

I. BACKGROUND AND PROCEDURAL HISTORY

The parties are well-acquainted with the long and winding history of this matter. As a result, for orientation purposes only, the Court will provide the relevant facts from the Supreme Court's decision in *Halliburton, Co. v. Erica P. John Fund, Inc.*, 134 S. Ct. 2398 (2014) ("*Halliburton II*"):

> Erica P. John Fund, Inc. (EPJ Fund), is the lead plaintiff in a putative class action against Halliburton and one of its executives (collectively Halliburton) alleging violations of section 10(b) of the Securities Exchange Act of 1934, 48 Stat. 891, 15 U.S.C. § 78j(b), and Securities and Exchange Commission Rule 10b–5, 17 CFR § 240.10b–5 (2013). According to EPJ Fund . . . Halliburton made a series of misrepresentations regarding its potential liability in asbestos litigation, its expected revenue from certain construction contracts, and the anticipated benefits of its merger with another company—all in an

> attempt to inflate the price of its stock. Halliburton subsequently made a number of corrective disclosures, which, EPJ Fund contends, caused the company's stock price to drop and investors to lose money. *Halliburton II*, 134 S. Ct. at 2405–06.

Plaintiffs, represented by the Erica P. John Fund, Inc. ("the Fund"), initially moved to certify a class consisting of all investors who bought Halliburton common stock between June 3, 1999 and December 7, 2001.[1] This Court found that the proposed class met all of the prerequisites of Federal Rule of Civil Procedure 23(a)—numerosity, common questions of law and fact, typicality, superiority, and adequacy. However, the Court denied class certification because Fifth Circuit precedent required Plaintiffs to prove "loss causation" to invoke the fraud-on-the-market presumption of *Basic v. Levinson*, 485 U.S. 224, 243 (1988), and the Court concluded the Fund had not met its burden of proof to do so.[2] The Fifth Circuit affirmed on that ground.[3] The Supreme Court subsequently vacated the judgment, holding that loss causation "addresses a matter different from whether an investor relied on a misrepresentation, presumptively or otherwise, when buying or selling a stock," and that loss causation need not be shown at the class certification stage. *Erica P. John Fund, Inc. v. Halliburton Co.*, 131 S. Ct. 2179, 2185–86 (2011) ("*Halliburton I"*). The case was remanded to this Court to address any "further arguments against class certification" preserved by Halliburton. *Id.* at 2187.

Halliburton argued on remand that the evidence it had presented to disprove loss causation also demonstrated that none of the alleged misrepresentations actually impacted Halliburton's stock price, *i.e.*, there was a lack of "price impact," and, therefore, Halliburton had

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[1] *Archdiocese of Milwaukee Supporting Fund, Inc. v. Halliburton Co.*, No. 3:02-CV-1152-M, 2008 WL 4791492, at *1 (N.D. Tex. Nov. 4, 2008) *aff'd*, 597 F.3d 330 (5th Cir. 2010) *vacated and remanded sub nom.*, *Erica P. John Fund, Inc. v. Halliburton Co.*, 131 S. Ct. 2179 (2011).
[2] *Id.*
[3] *Archdiocese of Milwaukee Supporting Fund, Inc. v. Halliburton Co.*, 597 F.3d 330 (5th Cir. 2010) *vacated and remanded sub nom.*, *Erica P. John Fund, Inc. v. Halliburton Co.*, 131 S. Ct. 2179 (2011).

rebutted the *Basic* presumption that the Fund and other members of the class relied on the misrepresentations when they bought and sold Halliburton's stock at the market price.[4] Halliburton argued the Fund and other putative class members would have to prove reliance on an individual basis, thereby causing individual issues to predominate over common issues.[5] This Court rejected that argument, and the Fifth Circuit again affirmed, holding that evidence of the absence of price impact to rebut the *Basic* presumption is not relevant to predominance under Rule 23(b)(3), but can be admitted at trial.[6]

In *Halliburton II*, the Supreme Court reversed, holding that Halliburton could introduce evidence of a lack of price impact at the class certification stage to show the absence of predominance. *Halliburton II*, 134 S. Ct. at 2414–17. The Supreme Court again vacated the judgment of the Fifth Circuit and remanded the case to this Court for further proceedings. *Id.* at 2417.

After *Halliburton II* was issued, this Court ordered the Fund and Halliburton to provide additional briefing on price impact as it relates to class certification.[7] Each party submitted an expert report and additional briefing, and the Court held an evidentiary hearing.[8] Both the Fund and Halliburton filed *Daubert* motions to exclude each other's experts, which the Court denied,

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[4] *Archdiocese of Milwaukee Supporting Fund, Inc. v. Halliburton Co.*, No. 3:02-CV-1152-M, 2012 WL 565997 (N.D. Tex. Jan. 27, 2012) *aff'd sub nom.*, *Erica P. John Fund, Inc. v. Halliburton Co.*, 718 F.3d 423 (5th Cir. 2013) *vacated and remanded*, 134 S. Ct. 2398 (2014) ("*Halliburton II*").

[5] *Id.*

[6] *Erica P. John Fund, Inc. v. Halliburton Co.*, 718 F.3d 423 (5th Cir. 2013) *cert. granted*, 134 S. Ct. 636 (2013) *vacated and remanded*, 134 S. Ct. 2398 (2014).

[7] Dkt. No. 568.

[8] Dkt. No. 572; Dkt. No. 590; Dkt. No. 598.

having determined that the parties' arguments about the reliability of the experts' methods were inextricably intertwined with the parties' merits arguments on price impact.[9]

Plaintiffs now seek to certify a class commencing on July 22, 1999, a later date than that originally requested. It was on July 22, 1999 that Halliburton announced its Second Quarter 1999 results and held an earnings call. Plaintiffs claim the class period should end on December 7, 2001, when Halliburton announced the verdict in Maryland against Halliburton's subsidiary, Dresser.[10] Plaintiffs seek to certify a class for only asbestos and accounting claims, not for claims relating to the Dresser merger.[11]

II. ANALYSIS

A. Issues Before the Court

Section 10(b) of the Exchange Act of 1934, and Rule 10b-5, which prohibit making material misstatements or omissions in connection with the purchase or sale of a security, are enforced by an implied private cause of action. In order to prevail and recover damages, a plaintiff must prove "'(1) a material misrepresentation or omission by the defendant; (2) scienter; (3) a connection between the misrepresentation or omission and the purchase or sale of a security; (4) reliance upon the misrepresentation or omission; (5) economic loss; and (6) loss causation.'" *Amgen, Inc. v. Connecticut Retirement Plans and Trust Funds,* 133 S. Ct. 1184, 1192 (2013).

The element of reliance "ensures that that there is a proper connection between a defendant's misrepresentation and a plaintiff's injury." *Halliburton I,* 131 S. Ct. at 2184–85 (citing *Basic,* 485 U.S. at 243). "The traditional (and most direct) way a plaintiff can

[9] Dkt. No. 598; Hr'g Tr. at 247:6–12.
[10] Dkt. No. 590 at 2 n. 1.
[11] *Id.*

demonstrate reliance is by showing that he was aware of a company's statement and engaged in a relevant transaction—*e.g.*, purchasing common stock—based on that specific misrepresentation." *Id.* at 2185. However, the Supreme Court in *Basic* explained that requiring "such direct proof of reliance 'would place an unnecessarily unrealistic evidentiary burden on the Rule 10b-5 plaintiff who has traded on an impersonal market.'" *Halliburton II*, 134 S. Ct. at 2407 (quoting *Basic*, 485 U.S. at 245). Furthermore, the Court in *Basic* recognized that "'[r]equiring proof of individualized reliance' from every securities fraud plaintiff 'effectively would . . . prevent [ ] [plaintiffs] from proceeding with a class action' in Rule 10b-5 suits" because "individual issues then would . . . overwhelm [ ] the common ones," thus precluding certification under Rule 23(b)(3). *Id.* (quoting *Basic*, 485 U.S. at 242).

Given the difficulties the reliance element posed for securities fraud plaintiffs, the Court in *Basic* held that such plaintiffs may, in limited circumstances, satisfy the reliance element of a Rule 10b-5 suit by invoking a rebuttable presumption of reliance. *Halliburton II,* 134 S. Ct. at 2408. Based on the "fraud-on-the-market" theory, a plaintiff must meet the following elements to invoke the *Basic* presumption: "(1) that the alleged misrepresentations were publicly known, (2) that they were material, (3) that the stock traded in an efficient market, and (4) that the plaintiff traded the stock between the time the misrepresentations were made and when the truth was revealed." *Id.* (citations omitted). The Court in *Basic* further explained that this presumption may be rebutted by "[a]ny showing that severs the link between the alleged misrepresentation and either the price received (or paid) by the plaintiff, or his decision to trade at a fair market price." *Basic*, 485 U.S. at 248. Therefore, "if a defendant could show that the alleged misrepresentation did not, for whatever reason, actually affect the market price, or that a plaintiff would have bought or sold the stock even had he been aware that the stock's price was

tainted by fraud," the presumption of reliance would have been rebutted. *Halliburton II*, 134 S. Ct. at 2408 (citing *Basic*, 485 U.S. at 248–49).

The Court has already found, and still finds, that the Fund has met the certification requirements of numerosity, commonality, typicality, superiority, and adequacy under Federal Rule of Civil Procedure 23. *See Halliburton II*, 134 S. Ct. at 2406. Those findings remain undisturbed. *See Archdiocese of Milwaukee Supporting Fund, Inc. v. Halliburton Co.*, No. 3:02-1152-M, 2012 WL 565997 (N.D. Tex. Jan. 27, 2012), *vacated on other grounds sub nom., Halliburton II*, 134 S. Ct. 2398 (2014). The only issue before the Court on class certification is predominance under Federal Rule of Civil Procedure 23(b), which requires that "questions of law or fact common to class members predominate over any questions affecting only individual class members." Fed. R. Civ. P. 23(b).

To overcome the difficulties of showing reliance on a class-wide basis, the Fund must demonstrate that the *Basic* presumption applies, by showing that Halliburton's misrepresentations were publicly known and material, that Halliburton's stock traded in an efficient market, and that Plaintiffs traded the stock between the times the alleged misrepresentations were made and when the relevant truths were revealed. Prior to *Halliburton II*, if it did so, this Court would have treated its inquiry as then at an end. However, in *Halliburton II*, the Supreme Court clarified that securities fraud defendants may rebut the *Basic* presumption at the class certification stage by presenting evidence of lack of price impact. *Halliburton II*, 134 S. Ct. at 2417. Thus, Halliburton now has the opportunity to rebut the presumption "with evidence that the asserted misrepresentation (or its correction) did not affect the market price." *Id.* at 2414.

Accordingly, the parties have submitted event studies, *i.e.*, regression analyses, to show that Halliburton's stock price was, or was not, affected on days when an alleged misrepresentation or corrective disclosure reached the market. *See id.* at 2415 (explaining that event studies may show both market efficiency and a lack of price impact). The parties also raise two threshold legal issues the Court will address before analyzing the parties' event studies—(1) who has the burden of production and persuasion; and (2) whether the Court should, as part of the price impact inquiry, rule as a matter of law that particular disclosures are corrective.

B. Burdens of Production and Persuasion

The Court is of the opinion, and the parties seem to agree, that the placement of the burdens of production and persuasion in this case does not alter the Court's decision on the merits.[12] The Supreme Court did not state expressly in *Halliburton II* whether plaintiffs or defendants must carry the burden of persuasion to show price impact or lack thereof, but based on the Court's analysis of the Supreme Court's decision in *Halliburton II*, and decisions by other district courts since *Halliburton II*, the Court finds the burdens of production and persuasion to show lack of price impact are properly placed on Halliburton.

Halliburton argues that neither the majority opinion nor the concurrence in *Halliburton II* expressly stated that a defendant must prove a lack of price impact. Halliburton also contends that placing the burden of persuasion on the Fund is consistent with Federal Rule of Evidence 301, which states:

> In a civil case, unless a federal statute or these rules provide otherwise, the party against whom a presumption is directed has the burden of producing evidence to rebut the presumption. But this rule does not shift the burden of persuasion, which remains on the party who had it originally.

[12] *See* Hr'g Tr. at 7:18–22, 17:6–12.

Fed. R. Evid. 301. Thus, Halliburton argues that under Rule 301, which was cited by the Supreme Court in *Basic*, the defendant only has the burden of "producing evidence to rebut the presumption." 485 U.S. at 245 (stating that presumptions are useful devices for allocating the burdens of proof between parties). Halliburton contends that the Fund has the burden of showing reliance, and the *Basic* presumption allows it to satisfy that burden if the Fund can establish the facts that give rise to the presumption. However, once Halliburton produces evidence to rebut the presumption, the presumption is rebutted and the case can no longer move forward on a class basis. Dkt. No. 572 at 3; *see also* Merrit B. Fox, *Halliburton II: It All Depends on What Defendants Need to Show to Establish No Price Impact*, 70 Bus. Law 437, 457 n. 47 (2014-15) (summarizing the Fed. R. Evid. 301 argument). Halliburton further argues that plaintiffs have the burden of proving predominance under Rule 23(b)(3), and because price impact has everything to do with the issue of predominance, the burdens associated with the issue should fall on the Fund. According to Halliburton, once it rebuts the presumption, a class may not be certified unless the Fund proves price impact.

The Fund responds that *Halliburton II* places both the burden of production and persuasion on Halliburton, because the Supreme Court reaffirmed *Basic's* presumption of reliance, but held defendants could rebut the presumption at the class certification stage by carrying the burdens of production and persuasion.[13] In their concurrence, Justices Sotomayor, Ginsburg, and Breyer stated that the "Court recognizes that it is incumbent upon the defendant to show the absence of price impact." 134 S. Ct. at 2417 (citing majority opinion at 2413–2414). Plaintiffs argue that prior Fifth Circuit precedent remains unchanged and, therefore, the burden

[13] *See* Hr'g Tr. at 16:25–17:1.

of persuasion is on Halliburton. *See Abell v. Potomac Ins. Co.*, 858 F.2d 1104, 1118 (5th Cir. 1988), *vacated in part on other grounds sub nom. Fryar v. Abell*, 492 U.S. 914 (1989).

The Fund further argues that, despite Halliburton's invocation of Rule 301 in its briefing to the Supreme Court, the Court did not reference Rule 301 in *Halliburton II*. Moreover, the Fund claims that the fraud-on-the-market presumption is "a substantive doctrine of federal securities law" and is not a creation of Rule 301. *See Halliburton II*, 134 S. Ct. at 2411 (citing *Amgen*, 133 S. Ct. at 1193). Finally, the Fund contends that relieving Halliburton of the burden of persuasion would eviscerate the *Basic* presumption because Halliburton could arguably satisfy its burden merely by having an expert opine that price impact was absent. Shifting the burden would require the Fund to prove price impact directly at class certification—a proposal the Supreme Court said would radically alter the reliance showing.

In *Halliburton II*, the Court saw no reason to "artificially limit the [price impact] inquiry at the certification stage to indirect evidence," and authorized defendants to seek to defeat the *Basic* presumption at the class certification stage through direct as well as indirect price impact evidence. 134 S. Ct. at 2417. By requiring plaintiffs to carry the burden of persuasion to show price impact at the class certification stage, this Court would, in effect, be requiring the Fund to prove price impact directly, a proposition the Supreme Court refused to adopt. Indeed, as the concurrence noted, requiring direct proof at the class certification stage would have a radical impact on 10b-5 class actions. *See Halliburton II*, 134 S. Ct. at 2417 (Ginsburg, J., Sotomayor, J., Breyer, J., concurring) ("The Court's judgment . . . should impose no heavy toll on securities-fraud plaintiffs with tenable claims" because "it is incumbent upon the defendant to show the absence of price impact.").

In *Aranaz v. Catalyst Pharmaceutical Partners, Inc.*, the court stated that defendants had the burden of persuasion to show an absence of price impact at the class certification stage, and concluded they failed to carry that burden, where there was a clear and drastic spike in price and an equally drastic decline following the misrepresentation and correction, respectively. 302 F.R.D. 657, 673 (S.D. Fla. 2014). In *McIntire v. China MediaExpress Holdings, Inc.*, consistent with existing precedent in the Second Circuit, the court stated that the defendant bore the burden at the certification stage to prove a lack of price impact. 38 F. Supp. 3d 415, 434 (S.D.N.Y. 2014) (citing *Halliburton II*, 134 S. Ct. at 2417 (Ginsburg, J., concurring)). In *Wallace v. IntraLinks*, the court also found that the defendants bore the burden to show a lack of price impact. 302 F.R.D. 310, 317 (S.D.N.Y. 2014) (citing *McIntire*, 38 F. Supp. 3d at 434).

Halliburton relies on Rule 301 to support its argument that it should bear only the burden of production. First, it is worth noting that, in *Basic*, the Court cited Rule 301 merely to illustrate the usefulness of presumptions in allocating the burden of proof. The *Basic* presumption's consistency with Rule 301 was one of many reasons the Court cited to support the presumption's creation. *See Basic*, 485 U.S. at 245 (justifying the presumption as being supported by common sense, probability, and consistency with congressional policy in enacting the 1934 Securities Exchange Act). Moreover, the very nature of the fraud-on-the-market presumption makes it difficult to apply Rule 301 in a direct manner:

> Rule 301 requires the party against whom a presumption is directed (the second party) to produce evidence suggesting the non-existence of the basic facts needed to establish the presumption. [Rule 301] seems to contemplate, though, that this evidence need only be sufficient enough to meet the burden of going forward. At this point the presumption disappears and the party that sought to invoke the presumption (the first party), without the aid of the presumption, has the burden of persuasion as to the fact that the presumption presumed. Behind this seemingly harsh rule appears to be a hidden assumption: the facts that need to be established to give rise to the presumption are probative as to the existence of the facts that the presumption presumes. So, while the

> first party no longer has the benefit of the presumption, it still has the benefit of the probative value of the evidence that it produced to originally give rise to the presumption.

Fox, *supra* p. 8, at 457–58. However, as Professor Fox explains, the fraud-on-the-market presumption is atypical, and as a result, does not neatly fit into the Rule 301 framework:

> The basic facts that the plaintiff needs to establish to give rise to [the fraud-on-the-market presumption]—the materiality of the misstatement and the efficiency of the market for the issuer's shares—are not probative to whether plaintiffs actually relied on the misstatement in the traditional sense. In other words, these basic facts do not help demonstrate that but for the misstatement, the plaintiffs would not have bought their shares. Rather, they are probative to whether the misstatement affected price.

Id. at 458. The Court in *Basic* essentially packaged a new cause of action as a presumption:

> [I]f the plaintiffs establish the specified facts giving rise to [the fraud-on-the-market presumption]—materiality and market efficiency—the plaintiff need not prove something that has been traditionally required in fraud-based damage actions, i.e. , that but for the misstatement, each plaintiff would not have purchased her shares. Unlike the usual presumption, however, the facts needed to establish the fraud-on-the-market presumption are entirely unrelated to the likelihood that the fact presumed by the presumption actually existed.

Id. As Professor Fox explains, a literal application of Rule 301 to the fraud-on-the-market presumption in a class certification hearing would allow defendants to preclude class certification by merely putting on a reputable expert that can opine with 95% confidence that a corrective disclosure had no effect on price. *Id.* at 458–59. According to Halliburton's position on Rule 301, the Fund would then be forced to move forward and prove reliance without the aid of the presumption, which would doom the class on predominance grounds. The Fund would not be afforded an opportunity to salvage the class by producing its own reputable expert to challenge Halliburton's. The Court finds that the Supreme Court would not have modified the fraud-on-the-market presumption so substantially without explicitly saying so.

Thus, to the extent it matters with respect to any of the conclusions reached below, the Court finds that both the burden of production and the burden of persuasion are properly placed

on Halliburton. In other words, Halliburton must ultimately persuade the Court that its expert's event studies are more probative of price impact than the Fund's expert's event studies.

C. Corrective Disclosures

Halliburton raises a threshold legal issue in its briefing on lack of price impact. It argues that each of the alleged corrective disclosures were not, in fact corrective, and therefore, Halliburton has rebutted the fraud-on-the-market presumption by showing a severance of the "link between the alleged misrepresentation and . . . the price received (or paid) by the plaintiff" because "the basis for the finding that the fraud had been transmitted through the market price [is] gone." *See Halliburton II,* 134 S. Ct. at 2415–16. Halliburton claims that there is evidence of no price impact when the alleged misrepresentation disclosed information already known by the market; said another way, a defendant rebuts the presumption by showing there was no *correction* that affected the market price.[14]

Accordingly, Halliburton argues that this Court's prior findings and the Fifth Circuit's findings relating to loss causation remain intact, and both Courts found that the alleged corrective disclosures were not, as a matter of law, corrective of the alleged misrepresentations.

The Fund counters that the class certification stage is not an appropriate procedural stage for the Court to rule on whether the disclosures at issue were corrective, and that this legal issue is more properly addressed at the pleading stage or the later summary judgment stage of proceedings.[15] Rather, the Fund maintains that this Court's inquiry should be limited to price impact—assuming the disclosure was corrective of an earlier fraud, did Halliburton's stock price move on the day of the disclosure?[16]

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[14] Dkt. No. 572 at 2.
[15] Hr'g Tr. at 17:18–18:3.
[16] *Id.* at 18:7–8.

Based on the Supreme Court's discussion in *Halliburton I*, *Amgen*, and *Halliburton II*, the Court finds that class certification is not the proper procedural stage for the Court to determine, as a matter of law, whether the relevant disclosures were corrective. Furthermore, the Court finds that Halliburton's arguments regarding whether the disclosures were corrective are, in effect, a veiled attempt to assert the "truth on the market" defense, which pertains to materiality and is not properly before the Court at this stage of the proceedings. *See Aranaz*, 302 F.R.D. at 671 ("[F]or purposes of determining at this early stage of litigation whether the alleged misrepresentation had any impact on the price of [the defendant's] stock, the Court must disregard evidence that the truth was known to the public.") (citing *Amgen*, 133 S. Ct. at 1203).[17]

In *Halliburton I*, the Supreme Court held that loss causation is not a precondition for invoking *Basic*'s rebuttable presumption of reliance. 131 S. Ct. at 2185–86. The Court explained that loss causation "addresses a matter different from whether an investor relied on a misrepresentation, presumptively or otherwise, when buying or selling a stock." *Id*. at 2186. The Court described the reliance element in a 10b-5 action as "transaction causation," as distinguished from loss causation, which means the Court "focus[es] on the facts surrounding the investor's decision to engage in the transaction." *Id.* (citing *Dura Pharmaceuticals, Inc. v. Broudo*, 544 U.S. 336, 342 (2005)). In holding that loss causation need not be proved at the certification stage, the Court reasoned that "[l]oss causation has no logical connection to the facts necessary to establish the efficient market predicate to the fraud-on-the-market theory." *Id.* The

[17] For example, Halliburton argues that the December 21, 2000 disclosure that it was taking a $120 million charge, in part due to losses on construction projects, was not corrective because Halliburton had previously disclosed the risk of cost overruns, and the market knew that such construction projects carried risk. Allen Rep. at 55 ¶ 116. In other words, Halliburton argues the market was *already aware* of what was disclosed on December 21, 2000. However, this is an argument more properly associated with materiality. *See Aranaz*, 302 F.R.D. at 671.

Court found that requiring securities fraud plaintiffs to prove loss causation at the class certification stage would contradict *Basic*'s fundamental premise that an investor presumptively relies on a misrepresentation when it was incorporated in the market price at the time of the transaction. *Id.*

In *Amgen*, the Supreme Court held that securities fraud plaintiffs need not prove materiality at the class certification stage, reasoning that "the question of materiality is common to the class, and [ ] a failure of proof on that issue would not result in questions 'affecting only individual members' predominating . . . ." *Amgen*, 133 S. Ct. at 1197. The Court found that plaintiffs' inability to prove materiality would not create a "fatal dissimilarity" among class members and make the class-action mechanism inefficient or unfair. *Id.* Indeed, the Court found that materiality could be proven through evidence common to the class, and insufficient or absent evidence on materiality would "end the case for one and for all" because "no claim would remain in which individual reliance issues could potentially predominate." *Id.* at 1195. The Court found that Amgen, in seeking to challenge materiality, was seeking to disprove an element of a Rule 10b-5 cause of action, which is more properly dealt with at trial or on a motion for summary judgment. *Id.*

Finally, in *Halliburton II*, in rejecting the Fund's argument that *Amgen*'s reasoning should apply to preclude Halliburton from introducing evidence of lack of price impact at the certification stage, the Court found that "price impact differs from materiality in a crucial respect." 134 S. Ct. at 2416. According to the Court, "materiality is a discrete issue that can be resolved in isolation from the other prerequisites" and "can be wholly confined to the merits stage." *Id.* In contrast, price impact goes to *Basic*'s fundamental premise—"[t]he fact that a misrepresentation 'was reflected in the market price at the time of [the] transaction.'" *Id.* (citing

Halliburton I, 131 S. Ct. at 2186). Because "publicity" and "market efficiency" are merely prerequisites for an indirect showing of price impact, evidence of which will already be before a court determining whether the *Basic* presumption applies, the Supreme Court held that defendants should be able to present evidence to rebut the *Basic* presumption at the certification stage. *Id.* at 2416–17.

This Court holds that *Amgen* and *Halliburton I* strongly suggest that the issue of whether disclosures are corrective is not a proper inquiry at the certification stage. *Basic* presupposes that a *misrepresentation* is reflected in the market price at the time of the transaction. *See Halliburton II*, 134 S. Ct. at 2416. Thus, at this stage of the proceedings, the Court concludes that the asserted misrepresentations were, in fact, misrepresentations, and assumes that the asserted corrective disclosures were corrective of the alleged misrepresentations. To hold otherwise would require the Court to pass judgment on the merits of the allegations after the dismissal stage and before summary judgment—in effect, giving a third bite at the apple to Halliburton. While it may be true that a finding that a particular disclosure was not corrective as a matter of law would "sever the link between the alleged misrepresentation and . . . the price received (or paid) by the plaintiff . . . .," the Court is unable to unravel such a finding from the materiality inquiry. *See Halliburton II*, 134 S. Ct. at 2415–16. Finally, a finding at this stage that a disclosure was not corrective will not result in a predominance problem, *i.e.*, a "fatal dissimilarity" that causes individual questions of law and fact to predominate over common questions. *See Amgen*, 133 S. Ct. at 1195–96. In other words, if Halliburton were to successfully persuade the Court at summary judgment that a particular disclosure was not corrective, it would end this controversy altogether. *See Aranaz*, 302 F.R.D. at 671.

D. Price Impact

Fraud on the market securities litigation typically focuses on a price change at the time of a corrective disclosure. Fox, *supra* p. 8, at 441. If a particular disclosure causes the stock price to decline at the time of disclosure, then the misrepresentation must have made the price higher than it would have otherwise been without the misrepresentation. *Id.* Measuring price change at the time of the corrective disclosure, rather than at the time of the corresponding misrepresentation, allows for the fact that many alleged misrepresentations conceal a truth. *Id.* Thus, the misrepresentation will not have changed the share price at the time it was made. *Id.*

To show that a corrective disclosure had a negative impact on a company's share price, courts generally require a party's expert to testify based on an event study that meets the 95% confidence standard, which means "one can reject with 95% confidence the null hypothesis that the corrective disclosure had no impact on price." *Id.* at 442 n. 17. An event study is generally comprised of two parts: (1) a calculation of the market-adjusted price change in the issuer's share price at the time the corrective disclosure became public, *i.e.*, the "difference between the observed price change [in Halliburton's stock price] and what the simultaneous change in overall stock market prices predicts would have been [Halliburton's] price change"; and (2) a determination of whether the corrective disclosure is among the [Halliburton-related] news that affected the price on the date the disclosure became public, *i.e.*, "ask[] how unusual it would be that the observed-market-adjusted price change is due solely to the day's other bits of [Halliburton-related] news and thus not in any part due to the corrective disclosure . . . by comparing the magnitude of the market-adjusted change in [Halliburton's] share price on the date of the corrective disclosure with the historical record of the daily, market-adjusted ups and downs in [Halliburton's] share price." *See id.* at 443.

1. Expert Findings

The determination of whether lack of price impact has been shown largely turns on the competing methodologies of the parties' experts.

Halliburton's expert, Lucy Allen ("Allen"), previously submitted reports on market efficiency and loss causation, as did the Fund's prior expert, Jane Nettesheim ("Nettesheim"). The Fund obtained a new expert, Chad Coffman ("Coffman"), to conduct its event studies for price impact testimony.

Allen reviewed the Fund's Complaint, its prior expert reports, and other pleadings to ascertain when the alleged misrepresentations were made, what was alleged to be false, when the truth was allegedly revealed to the market, and what was alleged to be corrective in the asserted corrective disclosures. Allen Rep. at 9 ¶ 15. Allen identified twenty-five dates on which misrepresentations occurred and thirteen dates on which corrective disclosures occurred. *Id.* ¶ 16. Because three of the dates had both a corrective disclosure and an alleged misrepresentation, Allen analyzed thirty-five separate dates. *Id.*

Allen then collected publicly available information about Halliburton, its peers, and issues that affected those firms' stock prices during the class period, including press releases, conference calls, SEC filings, analyst reports, news stories, reports by credit rating agencies, trade publications, and data on expected future volatility of stock prices. *Id.* at 9–11 ¶ 17. Allen reviewed the collected information and commentary to determine what market factors affected Halliburton's stock price, what information was publicly known at what time, how analysts interpreted publicly known information about the alleged misrepresentations, and what analysts considered important and new in the alleged corrective disclosures. *Id.* at 11 ¶ 18.

Allen developed a market model and performed an event study to determine whether there was statistically significant price movement on the dates of the alleged misrepresentations and corrective disclosures. *Id.* ¶ 19. Event studies are used by academics to determine whether and how stock prices respond to new information, and they typically measure movement in a stock price after an event, adjusting for movement in the overall market and/or industry. *Id.* As discussed below, Allen selected specific indices to adjust for movements in the energy services and energy and construction industries. *Id.* at 13 ¶ 21. Her regression analysis estimated the relationship between Halliburton's daily stock returns and the daily returns of the two industry indices she chose. The results of Allen's regression analysis and the return of the industry indices were utilized to predict Halliburton's price movement. The difference between Halliburton's predicted return and its actual stock return constituted the portion of Halliburton stock price movement not explained by contemporaneous movements in Halliburton's industries. *Id.* Allen then tested the statistical significance of Halliburton's excess stock price movement, *i.e.*, price reaction, after each of the misrepresentations, corrective disclosures, and other relevant dates. *Id.* When analyzing the statistical significance of a price reaction to an event, Allen used the commonly-applied 95% confidence level, which means there is a 5% chance of finding a statistically significant price reaction even when there is company-specific news on the market and the price moves according to normal daily fluctuations.[18] *Id.* ¶ 22. As is discussed below, Allen also applied a Bonferroni multiple comparison adjustment, the propriety of which is disputed by the Fund. *Id.* at 13–14 ¶¶ 23–25. Finally, Allen used the information and analyses described to examine whether the alleged misrepresentations impacted Halliburton's stock price.

[18] In other words, "for every 100 price reactions analyzed at the 95% confidence level, on average, 5 will be statistically significant for no reason other than the normal daily variation in the stock price." Allen Rep. at 13 ¶ 22.

Id. at 15 ¶ 27. Ultimately, Allen found no price impact after any of the alleged misrepresentations or corrective disclosures, with the exception of December 7, 2001, about which Allen states there was no price reaction *as to the alleged misrepresentation*, which the Court interprets to mean that the price reaction was caused by factors other than Halliburton's disclosure of an adverse asbestos verdict.

In his rebuttal report, the Fund's expert, Chad Coffman, argued that there are six relevant events in this case on which to evaluate price impact: an accounting corrective disclosure on December 21, 2000, and asbestos corrective disclosures on June 28, 2001, August 9, 2001, October 30, 2001, December 4, 2001, and December 7, 2001. Coffman Rep. at 2–3 ¶ 8. Coffman claimed that his event study and analysis show that the market responded significantly to each of these six events. *Id.* at 3 ¶ 9. Coffman presumed that Plaintiffs' allegations are true—that Halliburton made material misrepresentations or omissions, with scienter, regarding its asbestos liability and its accounting on fixed-price contracts. *Id.* at 12 ¶ 16. Coffman objects to several of the methods employed by Allen in her report, particularly her use of a multiple comparison adjustment and the choice of industry indices she used as bases to compare Halliburton's stock price movement.

Allen found no evidence of price impact as to the thirteen corrective disclosures identified by the Fund's prior expert, Jane Nettesheim. Hr'g Tr. at 8:7-11. Furthermore, according to Allen, Nettesheim's method of selecting the thirteen corrective disclosures was flawed, because Nettesheim first looked at every trading day during the 633 day class period, performed an event study testing Halliburton's stock price on each day, and then looked for Halliburton-specific news on the days on which Halliburton's stock had a significant price reaction. Allen Rep. at 8 ¶ 13. If the news disclosed on the date of a significant price reaction

related to the allegations in the Complaint, Nettesheim treated it as a corrective disclosure. Hr'g Tr. at 8:12-24. Halliburton argues that the six dates now identified by the Fund are merely a subset of the thirteen dates identified by Nettesheim, dates Halliburton alleges were derived from Nettesheim's original flawed methodology.[19] *Id.* at 32:10-12, 21-25, 33:6-9. The Fund responds that Nettesheim denied coming up with her dates in the way Allen argues, and that the Fund's new expert, Mr. Coffman, maintains the dates were selected because on those dates there was news related to the allegations in the Complaint, not because there was statistically significant price movement on those dates. *Id.* at 20:5-7; Coffman Rep. at 27 ¶ 48.

There is insufficient evidence before the Court to conclude that Nettesheim's methodology was flawed in the way Halliburton alleges. Nettesheim prepared reports regarding market efficiency and loss causation, not price impact. Here, Halliburton must show lack of price impact by showing that Allen's findings are more persuasive than Coffman's.

According to Allen, there are three primary differences between her methodology and Coffman's: (1) Coffman used an additional industry index to adjust for movements in Halliburton's specific industries; (2) Coffman made a multiple comparison adjustment only for six dates, rather than for the thirty-five separate dates alleged as either misrepresentations or corrective disclosures in the Complaint; and (3) Coffman applied a Holm-Bonferroni multiple-comparison adjustment.

For his part, Coffman argues there are two fundamental flaws to Allen's approach: (1) she did not adequately control for stock price movements in Halliburton's specific industries, and Coffman claims he dramatically increased the explanatory power of Allen's event study by

[19] Allen explained, "[Coffman's] testing the height of people and not taking into account the fact that Nettesheim already started and handed him a list of basketball players." Hr'g Tr. at 43:3-5.

creating an additional peer index; and (2) Allen's multiple comparison adjustment is novel, unnecessary, and yields erroneous results, because it in effect requires greater than a 99% confidence level for a stock price movement on a particular day to be considered statistically significant. If one were to use a multiple comparison adjustment, Coffman argues a Holm-Bonferroni adjustment would be more appropriate than a Bonferroni adjustment because it lowers the risk of false negatives—in other words, it lessens the likelihood of finding no price reaction when there actually is a price reaction. Coffman Rep. at 4 ¶ 9(ii)-(iii).

2. Control Group

According to Allen, the fundamental flaw in Coffman's methodology was his construction and use of the control period. The control period is used to estimate the relationship between Halliburton and industry indices. An event study should take into account how Halliburton's stock moves relative to industry indices during the control period, and then that relationship should be used to predict on a test date whether Halliburton's stock price movement is significantly different from what would have been predicted under normal circumstances. Hr'g Tr. at 46:8-17.

Allen considered Halliburton's relationship to the industry indices by looking at the dates during the class period, excluding the thirty-five test dates Nettesheim claimed had a misrepresentation or corrective disclosure. Hr'g Tr. at 44:13-15. Allen concluded the other dates during the class period constituted the control group, to which she could compare the thirty-five test dates. *Id.* at 44:15-19. In contrast, Coffman did not test the thirty-five dates, instead testing only six dates; however, the thirty-five dates were also not in his control group, which, according to Allen, made his methodology internally inconsistent. *Id.* at 44:20-22.

Coffman also used the longer class period originally claimed, whereas Allen used the newer, shorter class period. *Id.* at 47:4-14.

To cure what she claims were Coffman's internal inconsistencies, Allen made two adjustments to Coffman's model: (1) she included the thirty-five test dates in his control period; and (2) she applied his methodology to the new class period. Allen also adopted all three changes Coffman suggested to her model, after which she found only two dates to be statistically significant—August 9, 2001 and December 7, 2001. *Id.* at 48:7-10, 17-21.

The Court is persuaded that Allen's adjustments to Coffman's model were appropriate to achieve internal consistency. The Fund provided no evidence, nor argument, that such adjustments to Coffman's model were unwarranted.[20] Thus, the Court will focus its analysis on August 9, 2001 and December 7, 2001, which both experts agree revealed a statistically significant price movement. Because the Court also finds lack of price impact on the other dates, for additional reasons, those dates are also discussed in further detail below.

3. Multiple Comparison Adjustment

According to Allen, the multiple comparison issue arises when a large number of price reactions are tested for statistical significance, because the more price reactions tested, the greater the odds are of finding statistical significance simply due to chance. Allen Rep. at 13 ¶ 23. Allen explained:

> [I]magine rolling a 20-sided die with 19 white sides and 1 red side. If the die is rolled once, it would be surprising if the die landed red-side up since the likelihood of this occurring is only 5% (1 out of 20). However, if the die is rolled 100 times, it would be

[20] In his report, Coffman argues that Allen adjusts for too many events, and the only relevant events to test are the alleged corrective disclosures, of which there are six, not thirty-five. Coffman Rep. at 30 ¶ 56. Even if the Court were to accept this argument as valid, it does not address Allen's consistency argument—if Coffman was going to only test six dates, he should have included all untested dates in his control group.

> much less surprising that the die landed red-side up 1 time since, on average, the die should land red-side up 5 times for every 100 rolls. Allen Rep. at 14 ¶ 24.

Allen argues that the multiple comparison problem arose in this case because the Fund asserted thirty-five dates on which alleged fraud inflated the stock price due to a misrepresentation or deflated the stock price because of a corrective disclosure. *Id.* at 14 ¶ 25. She calculated that each of thirty-five price reactions had a 5% chance of being found statistically significant because of normal fluctuations in the stock price. *Id.* Allen explains that, with that volume, it would not be surprising to find a statistically significant result on a day when no company-specific news was released to the market, and that the problem was exacerbated in this case by Nettesheim's initial method of testing all dates during the class period for statistical significance before looking for company-specific news.[21] *Id.* at 14, n.28.

Allen claims a commonly accepted method to correct for the multiple comparison problem is to apply the "Bonferroni adjustment."[22] *Id.* at 15 ¶ 26 (citing Hervé Abdi, ENCYCLOPEDIA OF MEASUREMENT AND STATISTICS 103–107 (Neil J. Salkind ed. 2007)). The Bonferroni adjustment takes into account the number of tests performed and adjusts the statistical thresholds of individual tests accordingly. *Id.*

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[21] At the evidentiary hearing, Allen explained that if you test thirty-five dates at the 5% level, there is an 83% chance that you will find a statistically significant date due to chance. Hr'g Tr. at 34:10-12. However, if you test all dates in the class period, the chance of finding statistically significant price movement at the 5% confidence level increases to 99.99%. *Id.* at 34:22-25. In short, the more dates you test, the easier it is to find something statistically significant at the 5% confidence level. *Id.* at 35:3-5.

[22] Allen alternatively applied the so-called Sidak adjustment, which she found did not change her conclusions. Allen Rep. at 15 n. 29; Hr'g Tr. at 33:22-25. In other words, she found the statistical significance result to be the same under either the Bonferroni or Sidak adjustment. Hr'g Tr. at 148:22-25. The Sidak adjustment is considered to be very similar to the Bonferroni adjustment. Abdi, *supra* at p. 23, 108 (explaining that the Bonferroni adjustment is more well-known and more heavily cited than the Sidak adjustment).

Coffman argues that Allen's use of a multiple comparison adjustment is novel, improper, and yields erroneous results, because it results in unacceptably high false negatives.[23] Coffman Rep. at 4 ¶ 9. He claims that Allen's method requires stock price movement to be statistically significant at greater than 99% confidence instead of the generally accepted 95% threshold.[24] *Id.*

Coffman contends that the standard approach among economists for determining the statistical significance of an event is to evaluate the probability of false positives for that particular event, given the observed price movement, and then compare it to the generally accepted 95% confidence threshold. Coffman Rep. at 25 ¶ 45. Coffman states that he has never seen a multiple comparison adjustment, like that applied by Allen, used in a securities case, with the exception of one case in which one of Allen's colleagues was a designated expert. *Id.* at 26 ¶ 46. Coffman responds that the multiple comparison problem is not present in this case, because there is no risk of "data mining," which he concludes arises when data is randomly tested.[25] *Id.* at 26 ¶ 47. Rather, he argues there is a clear theory in this case and objective criteria for determining which data to test—in a semi-strong efficient market like that present here, there is an expectation that stock prices will react negatively to the revelation of negative news. *Id.* at 26–27 ¶ 48; Hr'g Tr. at 171:10-14. He argues that on every one of the six dates he tested, there

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[23] Coffman also refers to this as a "Type II" error. Type II errors refer to the probability of saying there was not a price reaction when, in fact, there was a price reaction. Coffman Rep. at 4 ¶ 9.

[24] Coffman claims that Allen's application of the Bonferroni adjustment requires the price reaction to be significant at the 99.86% level, and only 6 out of 633 days during the class period would qualify as statistically significant under Allen's model. Coffman Rep. at 27–28 ¶ 52; Hr'g Tr. at 174:4-8. He notes that Allen herself testified that one would expect to observe 5% of the days to be statistically significant on chance alone. *Id.*

[25] Although Coffman uses the term "data mining," he did not elaborate on the concept or cite literature to explain the concept in the context of event studies. As far as the Court can tell, data mining is a very general term that is used in a wide variety of contexts in business and statistics. Moreover, none of the literature cited by Allen uses the term "data mining."

was news about Halliburton's asbestos exposure or accounting information, and therefore, a multiple comparison adjustment is unnecessary. Hr'g Tr. at 171:15-19.

Alternatively, Coffman argues that if a multiple comparison adjustment is used, the appropriate adjustment is a Holm-Bonferroni adjustment, because it lessens the high probability of false negatives that arises with the more conservative Bonferroni adjustment. Coffman Rep. at 29 ¶ 53; Hr'g Tr. at 172:10-13.

The Court is persuaded that the use of a multiple comparison adjustment is proper in this case because of the substantial number of comparisons, thirty-five comparisons, being tested for statistical significance in Allen's analysis. *See* Charles Seife, "The Mid-Reading Salmon," *Scientific American*, Aug. 2011, 30 (explaining that, in instances where as few as 20-40 comparisons are made, researchers are virtually guaranteed to find statistical significance in results that are, in fact, "statistical flukes"). Moreover, there is the unverified, but not entirely refuted, specter that Mr. Coffman's predecessor, Ms. Nettesheim, selected her dates by looking for statistically significant dates and *then* looking for Halliburton-specific news on those dates, from which Mr. Coffman selected the six events in his expert report. Coffman argues that the dates analyzed were specifically chosen because of news related to the allegations, not because of statistical price movement. However, that argument does not refute Ms. Allen's point. She concedes that the six dates were chosen because of news related to the allegations, but she argues they were selected *after* the thirty-five dates were found to have statistical price movement. Coffman did not explain how Nettesheim chose her dates, nor did he go into detail about how he chose the six dates.

However, the Court is mindful of Coffman's contention that the Bonferroni adjustment is overly concerned with Type I errors—false positives—and thus generates a relatively high

incidence of Type II errors—false negatives. *See* Coffman Rep. at 30 ¶ 55; *see also* Abdi, *supra* p. 23, at 111 (explaining that the Bonferroni adjustment becomes "very conservative when the number of comparisons becomes large and when the tests are not independent"). Thus, to the extent the measure of price impact is affected by the use of the Bonferroni adjustment rather than the Holm-Bonferroni adjustment, the Court will apply the Holm-Bonferroni adjustment, because it addresses the multiple comparison problem raised by Allen, while also guarding against the prospect of unacceptably high levels of Type II errors warned about by Coffman. Although the Court is mindful of the Fund's argument that multiple comparison adjustments are rarely utilized in event studies for securities litigation, that argument does not refute the plausible concerns raised by Allen. The Court also notes that on certain of the dates in question, the absence of price impact is shown without making a Holm-Bonferroni adjustment. In conclusion, the Court finds that applying a Holm-Bonferroni multiple comparison adjustment is appropriate in this case.

4. Additional Index

To adjust for movement in Halliburton's industries, Allen selected an index for each of Halliburton's two main lines of business—(1) energy services, and (2) engineering and construction (E&C). To control for the energy services industry, she used the S&P 500 Energy Index, which is an off-the-shelf index used by Halliburton in its SEC filings to gauge its relative stock performance ("S&P Energy Index"). Allen Rep. at 12 ¶ 20. To control for the E&C industry, Allen used an index composed of Fortune 1000 companies classified by Fortune as being in the E&C industry ("Fortune E&C Index"). *Id.* Allen explained that she considered constructing an E&C index using analyst reports and financial news issued before and during the class period, but found the Fortune E&C Index had the "best fit" during the class period. *Id.* at

12 n. 20. Allen also tested whether Halliburton's stock price movement during the class period could be better explained by an index constructed of companies discussed by analysts as having asbestos exposure; however, she found that such an index did not add any more explanatory power to her model than did the S&P Energy Index and the Fortune E&C Index. *Id.* at 12 n.21; *id.* at Ex. 2.

Coffman argues that Allen's model does not adequately control for stock price movements in Halliburton's specific industries, and so her model suffers from what he calls "omitted variable bias."[26] Instead of merely using the S&P Energy Index and the Fortune E&C Index, Coffman argues Allen should have included a peer index composed of companies identified by securities analysts as being Halliburton's peers. Coffman Rep. at 3–4 ¶ 9. Coffman claims to have dramatically increased the explanatory power of Allen's event study by including such an index. *Id.* at 4 ¶ 9. Coffman describes the S&P Energy Index as being primarily comprised of oil companies. For example, the top three companies in the S&P Energy Index are oil-refining companies, not energy-services companies like Halliburton. Coffman Rep. at 17 ¶ 28. Therefore, an event that causes Halliburton's stock price to react might not similarly affect an oil company, and vice versa. *Id.* at 17–18 ¶ 29.

As a result, Coffman reviewed analyst reports and constructed a peer index composed of companies identified by analysts as being Halliburton's peers ("Analyst Index").[27] *Id.* at 18 ¶ 30;

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[26] Omitted variable bias is error that occurs from failing to control for an important determinant of the variable of interest, which often results in drawing inappropriate statistical conclusions. Coffman Rep. at 3 n. 5. In other words, Coffman argues that, because Allen's study lacks the additional Analyst Index as an independent variable, the dependent variable, *i.e.* price reaction, is unreliable.

[27] Allen confirmed that this was a valid approach for constructing an industry index. Coffman Rep. at 18 ¶ 30. However, Allen stated that using such an index did not improve the explanatory power of her model. Allen Rep. at 12 n.20-21. In her rebuttal, Allen ultimately applied the

id. at Ex. 2. According to Coffman, analysts covering Halliburton discussed Baker Hughes and Schlumberger far more than any other companies.[28] *Id.* at 18–19 ¶ 31. Coffman found that those two companies only represented 6.2% of the S&P Energy Index utilized by Allen. Coffman Rep. at 19 ¶ 32, Ex. 3a.

On the other hand, the Analyst Index is a value-weighted index comprised of companies cited by analysts as Halliburton's peers at least three times during the class period, and having a market capitalization of at least $1 billion.[29] *Id.* at 19 ¶ 33. Baker Hughes and Schlumberger represent over half of the Analyst Index. *Id.* at Ex. 3a. Coffman argues, and provides evidence, that the addition of the Analyst Index better explains Halliburton's stock price movement.[30] *Id.*

Analyst Index while making the internal consistency adjustments to Coffman's model. Hr'g Tr. at 48:17-21.

[28] The Court takes judicial notice of the fact that Halliburton and Baker Hughes have recently merged. *See* March 27, 2015 Halliburton Press Release, "Halliburton and Baker Hughes announce approval of transaction by stockholders of both companies," http://www.halliburton.com/en-US/news/hal-acquisition.page?node-id=hfci272b. *See* Fed. R. Evid. 201(b)-(c) (permitting a court to take judicial notice of an undisputed fact established by unquestionable sources or that is generally known within the court's territorial jurisdiction).

[29] Coffman did not explain exactly where the Halliburton citations were located, either in analyst reports or elsewhere. The Court will assume that the citations to which Coffman refers were in analyst reports.

[30] Coffman stated that the adjusted R-squared statistic, which increases if a new term improves a model more than would be expected by chance increases from 49% to 74%, which the Court interprets to mean Allen's model explains only 49% of the variance in Halliburton's stock price during the class period, while adding the Analyst Index explains 74% of the variance. Coffman Rep. at 20–21 ¶¶ 34-35. Coffman also states that adding the Analyst Index also reduces the Root Mean Squared Error (RMSE) from .0228 to .0162, which the Court interprets to mean there is less unexplained "randomness" in the model with the Analyst Index. *Id.* at 21 ¶ 36. In contrast, Coffman contends that Allen's regression model attributed 40% more of Halliburton's stock price volatility to "randomness," rather than to industry effects. *Id.* Coffman also found that the "coefficient," which measures the magnitude of the influence that the particular index has on Halliburton's stock price, is higher for the Analyst Index than it is for the S&P Energy Index or the Fortune E&C Index. *Id.* at 21–22 ¶ 37. Finally, he found that the t-statistic, which is used to measure whether the relationship being measured is unlikely to occur by chance, indicates Halliburton's correlation with the Analyst Index is statistically significant at greater than a 99.99% confidence level. *Id.* at 22 ¶ 37.

at 20 ¶ 34. Allen did not meaningfully rebut that evidence.[31]

Because the addition of the Analyst Index constructed by Coffman increases the explanatory power of Allen's model, the Court is persuaded that it should be utilized in measuring the statistical significance of the price reaction on the six dates in question.

5. One or Two-Day Windows

On several of the six dates chosen by Coffman to measure price impact, he used a two-day window to measure price impact. For example, Coffman argues that a price decline on December 22, 2000 is related to a corrective disclosure on December 21, 2000. He argues that use of a two-day window is widely observed in financial literature, and Allen herself used a two-day window when comparing Halliburton's returns to other asbestos companies in the wake of the December 7, 2001 corrective disclosure. Coffman Rep. at 10–11 ¶ 13. Nevertheless, Coffman argues that all but one event has a statistically significant return, with greater than 95% confidence, over a one-day window, with December 21, 2000 being the only exception.

The Court finds that, in this case, the use of a two-day window is inappropriate to measure price impact in an efficient market. An efficient market is said to digest or impound news into the stock price in a matter of minutes; therefore, an alleged corrective disclosure released to the market at the start of Day 1, coupled with an absence of price impact throughout

[31] Hr'g Tr. at 151:12-15 (Q: "Would the explanatory power of your [re]gression analyses be increased by adding to your model to the Coffman peer group?" A [Allen]: "Yes. Mr. Coffman says the explanatory power increases and it does increase when he adds an additional index."); *id.* at 152:14-18 (Q: "And does the RMSE change in your model if you use Mr. Coffman's index?" A [Allen]: "Yes. The error goes down, which is what makes more things appear to be statistically significant than they would be if you didn't include the index."). Allen argued in part that the "more [Coffman] puts stuff in to [his model] to explain Halliburton's stock price, the more any deviation from the stock price then becomes statistically significant," which she says is akin to data mining. *Id.* at 151:17-21. She also noted that, in Coffman's prior reports, he used off-the-shelf indices and looked at what companies compared themselves to in SEC filings, as Allen did here. *Id.* at 48:17-21.

Day 1, followed by a price impact on Day 2, will not show price impact as to the alleged corrective disclosure. *See* Allen Rep. at 59 n.135 (citing Richard A. Brealey & Stewart C. Myers, *Principles of Corporate Finance*, at 351–53 (McGraw-Hill: New York, 7th ed. 2003)) (explaining that studies show that when firms publish their latest earnings or announce dividend changes, the major part of the price adjustment occurs within 5 to 10 minutes of the announcement); *see also* Fox, *supra* p. 8, at 444 n. 20 ("[W]e can assume that the predictive value of any firm-specific information that becomes newly public is reflected in price very quickly."). As is discussed below, this principle negates the Fund's allegation of price impact on December 21, 2000 and Halliburton's argument that there was no price reaction on the second trading day after Halliburton's December 7, 2001 disclosure.

6. Events at Issue

A. Fixed-Price Construction Contracts

On December 21, 2000, Halliburton issued a press release announcing that it would take a $120 million after-tax charge because of restructuring and charges on projects in its engineering and construction business. Def. App. 336–37 (12/21/00 Press Release). According to the Fund, Halliburton's 1999 10-K, released on March 14, 2000, disclosed "[c]laims and charge orders which are in the process of being negotiated with customers, for extra work or changes in the scope of work are included in revenue when collection is deemed probable." Allen Rep. at 46 ¶ 94. The Fund alleges that this disclosure was a misrepresentation because Halliburton allegedly included claims in revenues even when their collection was not probable. *Id.* The truth was allegedly revealed to the market in a series of corrective disclosures, one of which was Halliburton's December 21, 2000 Press Release announcing a $120 million after-tax charge.

Allen argues there was no statistically significant price reaction on this date, both with and without adjusting for multiple comparisons. Allen Rep. at 47 ¶ 95. She also argues the disclosure was not corrective, and the market did not see it as such.[32] *Id.* at 49 ¶ 97; *id.* at 55–56 ¶¶ 116–21. Furthermore, Allen faults Coffman for using a two-day window to measure price reaction, arguing that Coffman's approach ignores market efficiency, on which the *Basic* presumption relies. *Id.* at 59 n.135; Hr'g Tr. at 54:23-25. Allen argues that the press release was sent out at 8:58 a.m., *before* the market opened at 9:30 a.m., on December 21, 2000, and Coffman could only show price impact during the end of the day on December 22, 2000, nearly two days after the information entered the market. *Id.* at 58–59 ¶¶ 128–29; Hr'g Tr. at 50:23–51:1. Even still, after making a multiple comparison adjustment, Allen finds there was not a statistically significant price impact on December 22, 2000.[33] *Id.* at 49 ¶ 98.

Coffman found that, using a two-day window, with no multiple comparison adjustment, there was a negative and statistically significant decline in Halliburton's stock price following the December 21, 2000 press release. Coffman Rep. at 10 ¶ 13; *id.* at 83 ¶ 182. Coffman also noted that Allen used a two-day window to show a lack of price impact on December 7, 2001. Coffman Rep. at 84 ¶ 184. Further, Coffman found statistically significant intraday movement during the day on December 21, 2000, at a 90% confidence level. *Id.* ¶¶ 185–86. Coffman agreed that there was no statistically significant stock price reaction on December 21, 2000, and

[32] However, as already discussed, the Court does not address this argument because it is more properly addressed at the pleading stage or merits stage of litigation, not the class certification stage.

[33] To the extent the Fund argues that Halliburton's financial statements released on January 30, 2001 increased the December 21, 2000 charge from $120 million to $193 million, Allen contends that the $193 million was pre-tax, and therefore consistent with the December 21, 2000 release. Allen Rep. at 60 ¶¶ 132–33. She notes that there was no price reaction on January 30, 2001, with or without adjusting for multiple comparisons. *Id.*; Allen Rep. at Ex. 1.

that his event studies generally use closing prices rather than intraday prices. *Id.* at 83 ¶ 183; Hr'g Tr. at 185:1-10.

Having considered the evidence provided by Allen and Coffman, the Court finds that there was no price impact on Halliburton's stock following the December 21, 2000 disclosure, assuming it was corrective. Absent a compelling explanation, which was not given, the Court finds that the use of a two-day window is inconsistent with an efficient market, especially where the relevant disclosure was made before the market opened on Day 1. Even without adjusting for multiple comparisons, Coffman found an intraday statistically significant price reaction on Day 1 only at a 90% confidence level, which is less than the 95% confidence level both experts require in their regression analyses and which the Court finds is necessary. *See* Hr'g Tr. at 58:14-18, 59:1, 201:16-202:8 (Coffman agreeing that the Reference Guide on Multiple Regression, published by the Judicial Conference of the United States, requires that the level of statistical significance be 95%). In contrast, with and without a multiple comparison adjustment, Allen found no price impact on December 21, 2000. The Court agrees with Halliburton that there was no price impact on December 21, 2000, and finds that Defendants have rebutted the *Basic* presumption as to the allegedly corrective disclosure made on that date.

B. Asbestos Disclosures

The Fund performed event studies for two types of disclosures relating to Halliburton's asbestos liability—(1) Halliburton's disclosures relating to the liability of its subsidiary, Dresser, for asbestos claims incurred by Dresser's former subsidiary, Harbison-Walker ("Harbison"), which allegedly revealed that Halliburton knew Harbison needed financial assistance, but declined to disclose the full extent of Harbison's request for assistance; and (2) a series of

adverse asbestos verdicts and judgments against Dresser, which allegedly revealed that Halliburton knew its asbestos liability was more significant than it had previously disclosed.

On May 14, 1999, in its 10-Q, Halliburton reported that its subsidiary, Dresser, had potential asbestos liability for claims filed against its former subsidiary, Harbison. Def. App. 255 (5/14/99 10-Q at 7). In early 1999, Halliburton had disclosed that Harbison had commenced arbitration, disputing its responsibility to indemnify Dresser for these claims. *Id.* On August 13, 1999, in its next 10-Q, Halliburton stated that Harbison was claiming it was owed $40 million for amounts it had previously paid to resolve post-1992 asbestos claims. Def. App. 261 (8/13/99 Halliburton 10-Q at 8).[34] On November 9, 2000, Halliburton reported that it and Harbison had settled, and that Harbison had agreed to continue defending post-1992 claims and acknowledged its obligation to indemnify Dresser. Def. App. 330–32 (11/9/00 Halliburton 10-Q at 10-11).

a. June 28, 2001

On June 28, 2001, Halliburton informed investors of a "new development," that Harbison had approached Halliburton seeking claims management and financial assistance concerning the post-1992 claims. Def. App. 367–68 (6/28/01 Halliburton Press Release at 1-2). On July 25, 2001, Halliburton announced it would take over management of the post-1992 claims against Dresser, and that Halliburton would take a $60 million after-tax reserve for those claims. Def. App. 370 (7/25/01 Halliburton Press Release at 2).

Halliburton argues that its June 28, 2001 disclosure of Harbison's request for claims management and financial assistance did not correct any alleged misrepresentation, and thus

[34] Allen found no statistically significant price reaction to this announcement under her model or Coffman's model. Hr'g Tr. at 67:5-9. Of course, there is an important distinction between disclosing the existence of a demand or dispute and disclosing the fact that the demand would, indeed, be satisfied by Halliburton, and the latter happened on June 28, 2001.

there can be no price impact on that date. Allen Rep. at 122 ¶ 281. Halliburton argues that investors were aware of the indemnity relationship between Harbison and Dresser throughout the class period, and Halliburton had already disclosed the risk that it would have to pay Harbison's post-1992 claims, with no price reaction. *Id.* at 123 ¶ 283 (citing 1999 10-Q, filed May 14, 1999); Allen Rep. at Ex. 1. Furthermore, Halliburton says Ms. Allen's opinion confirms as much, because she found no evidence that market analysts viewed the June 28, 2001 disclosure as indicating that Halliburton's prior representations had been misleading. Allen Rep. at 126 ¶ 290. Finally, Allen's study found no statistically significant price drop that day, after making a Bonferroni multiple comparison adjustment, and she found no statistically significant price drop under Coffman's model after making internal consistency adjustments. Allen Rep. at 125 ¶ 289; Hr'g Tr. at 63:19-25.

The Fund argues that the June 28, 2001 press release was corrective of Halliburton's fraudulent omission that it knew Harbison would be seeking financial assistance, and that it knew there would likely be an increase in the number of asbestos claims filed against it. Dkt. No. 594 at 19. According to the Fund, the June 28, 2001 press release indicated that Halliburton's costs for resolving at least some of its pending claims would rise, which made the release corrective of Halliburton's prior misrepresentations about its liability for pending claims. Coffman Rep. at 69–70 ¶¶ 147–49. Coffman notes that Allen cited to an analyst report from A.G. Edwards, in which the analyst connected the June 28, 2001 press release to Halliburton's representations in previous SEC filings. *Id.* at 70 ¶¶ 147–48 (quoting Allen Rep. at ¶ 287). Furthermore, Coffman claims that many of Allen's arguments focus on whether there was a material misrepresentation, when the inquiry should be to assume a material misrepresentation, and then determine whether there was price impact. Coffman Rep. at 72 ¶ 153. Despite Allen's

argument that analysts did not understand Halliburton's June 28, 2001 announcement as revealing a prior falsity, Coffman maintains it is not necessary for analysts to contemporaneously recognize the prior announcement as false, as Allen agreed. Coffman Rep. at 72–73 ¶ 154 (citing Allen Dep. at 103:5-10). Coffman found a negative and statistically significant price reaction in both the one and two day windows following the June 28, 2001 disclosure, and he claims that Allen did as well, before she applied the Bonferroni adjustment. Coffman Rep. at 70–71 ¶¶ 150–51.

Having considered the evidence provided by Allen and Coffman, the Court finds there was no price impact relating to the June 28, 2001 disclosure. As already stated, the Court will limit its inquiry to the event studies, not to the factual matter of whether the disclosure was corrective. The issue regarding this event is whether the Court should apply the Holm-Bonferroni adjustment to Allen's model and whether the "internal consistency" adjustments advocated by Allen are appropriately applied to Coffman's model. As already discussed, Allen made each of three adjustments advocated by Coffman—using the additional Analyst Index, making a multiple comparison adjustment for only six dates, and applying the Holm-Bonferroni adjustment—and added in the balance of the thirty-five dates to make Coffman's model internally consistent, and she found no price impact. Hr'g Tr. at 48:7-11. As already discussed, the Court finds that these adjustments are appropriately applied to Coffman's model. Accordingly, neither Coffman's, nor Allen's, analysis shows price impact on June 28, 2001, and Defendants have rebutted the *Basic* presumption as to the corrective disclosure on that date.

b. August 9, 2001

On August 9, 2001, Halliburton filed its second quarter 2001 10-Q, in which it explained that, during that quarter, Halliburton "experienced an upward trend in the rate of new asbestos

claims" being filed. Pl. App. 388 (Halliburton 2Q01 SEC Form 10-Q). Halliburton also explained that its gross asbestos liability had grown to $699 million as of June 30, 2001, which was much larger than the $60 million in liability Halliburton had announced on July 25, 2001.[35] Coffman Rep. at 74 ¶ 159 (citing Pl. App. 388). Coffman claims that Halliburton's 10-Q disclosure provided additional detail regarding Halliburton's asbestos exposure. *Id.* at 73 ¶ 157.

Halliburton argues that the 10-Q was actually confirmatory of information Halliburton had previously reported, and therefore not a corrective disclosure nor evidence of price impact. Halliburton argues that the $699 million figure disclosed in the August 9th 10-Q appears much larger than the figure previously announced, but the figures are in fact the same because the previously-announced figure was net of insurance.[36] Hr'g Tr. at 73:22-23. On July 25, 2001, Halliburton disclosed the $60 million figure as a net amount because market analysts stated that Halliburton had approximately 75% of its claims covered by insurance, and the Harbison claims were 90% covered. *Id.* at 74:7-11, 221:7-25. Therefore, on July 25, 2001, the market could have easily surmised that Halliburton's gross asbestos liability was around $699 million, and there

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[35] The Fund initially claimed that the August 9, 2001 10-Q disclosed for the first time that Halliburton had increased its asbestos reserves from $30 million to $124 million, but Coffman now concedes that this information was already disclosed to the market on July 25, 2001. Coffman Rep. at 73–74 ¶ 158; Hr'g Tr. at 218:17. Halliburton's net asbestos liability as of March 31, 2001 was $ 30 million. Allen Rep. at 126–27 ¶ 293. The $124 million in net liabilities reported on August 9, 2001 was an increase of nearly $95 million from the previous period. *Id.* However, this increase was almost entirely due to the $92 million pre-tax amount the company decided to record for pending Harbison claims, which it had already announced in a press release issued July 25, 2001. *Id.* The $60 million in the August 9, 2001 10-Q was the exact same information announced in the July 25, 2001 press release. Allen Rep. at 127 ¶ 195; Hr'g Tr. at 71:8-11, 72:15-16.

[36] The $60 million net liability previously disclosed approximates to $92 million pretax, and applying the 90% coverage rate to the $92 million pretax figure results in $920 million gross liability, which does not include the $84 million Halliburton had disclosed in non-Harbison related claims in the prior quarter. In any event, $920 million is substantially larger than the $699 million the Fund claims was a corrective disclosure. Hr'g Tr. at 221–22.

was no statistically significant price reaction on that date according to Coffman's and Allen's respective models. *Id.* at 79:1-4.

Halliburton also rejects the Fund's attempted focus on an alleged increase in the rate of new asbestos claims being filed, because it argues that the rate of new claims being filed increased at a relatively consistent rate in each of the previous quarters in 2001. Hr'g Tr. at 77:21-25. Halliburton argues that it never stated that its claims or rate of claims would never increase. *Id.*

After adjusting for multiple comparisons, Allen argues there was no statistically significant price reaction on August 9, 2001. *Id.* ¶ 299; Hr'g Tr. at 70:6-7. On the other hand, Coffman found a statistically significant price reaction before the application of a multiple comparison adjustment. Coffman Rep. at 74–75 ¶ 161.

The Court finds that, on this date, Halliburton has met its burden of showing a lack of price impact, if only because the Fund has not shown that Halliburton disclosed any information related to its asbestos liability that was not already impounded in the market price of the stock on August 9, 2001, and therefore, there can be no price reaction. Halliburton effectively rebutted the Fund's claims that Halliburton disclosed either a substantial increase in its gross asbestos liability or a substantial increase in the rate of new claims. Halliburton has demonstrated that the gross liability figures were akin to comparing apples and oranges, in that the previously disclosed figures were after-tax and/or net of insurance, and Halliburton's rate of insurance coverage was well known to the market. Coffman contends that his studies show that it was "highly unlikely that the market anticipated everything that was announced" on August 9, 2001, because his study shows a statistically significant price reaction at the 99.99% level on that date. Hr'g Tr. at 226:5-8. The Fund has shown that there was a price movement on that date;

however, Halliburton has demonstrated that the disclosure that allegedly caused the price reaction was already disclosed to the market on July 25th, to no price reaction. The Court's finding is reinforced by Coffman and the Fund's concession that the Fund's previous alleged corrective disclosure—that net asbestos liability increased from $60 million to $124 million—had already been disclosed on July 25, 2001. Coffman's new theories relating to August 9, 2001 fare no better under closer scrutiny. The Court is not determining as a matter of law that the disclosures were not corrective, but rather, that Halliburton has shown that the information alleged by the Fund to be corrective was *both* already disclosed *and* caused no statistically significant price reaction. Thus, the Court finds that Halliburton has rebutted the *Basic* presumption with respect to the corrective disclosure on August 9, 2001.

c. October 30, 2001

On October 26, 2001, a Mississippi jury found Dresser, AC&S Inc., and 3M Corp. liable for damages totaling $150 million, one of the largest verdicts ever rendered in asbestos litigation at the time. Allen Rep. at 88 ¶ 202. Dresser's share was $21.25 million, and Halliburton announced the verdict in a press release issued on October 30, 2001. *Id.*

Allen notes that the verdict was first announced on Sunday, October 28, 2001 in the *Clarion-Ledger*, a Mississippi statewide newspaper, and Associated Press wires. *Id.* at 88–89 ¶ 203, 207; Hr'g Tr. at 84:7-9. Allen argues that this disclosure on October 28, two days before Halliburton's press release of October 30, negates any price reaction on October 30 or 31, because an efficient market would have already absorbed the news of the verdict and impounded that news in the stock price *before* Halliburton's press release was issued. Hr'g Tr. at 82:24-25, 85:17-19. Allen found no statistically significant price reaction on October 29, when Dresser's codefendant in the case, 3M Corp., made a public announcement about the verdict that

mentioned Dresser. *Id.* at 89 ¶¶ 204-05. According to Allen, there is significant overlap between Halliburton and 3M investors—more than half of Halliburton's outstanding shares are owned by investors that also own 3M shares—so one would assume that many investors that took notice of the 3M press release would also be interested in Halliburton. Hr'g Tr. at 86:16-20.

Allen also notes that analysts later commented on the lack of price reaction following the Mississippi verdict. Allen Rep. at 89 ¶ 206 (quoting Credit Suisse Report, 12/10/01) ("Looking at Halliburton's share price performance over the past year it is interesting to note that it didn't move – up or down . . . when the company made the filing for the second case, on the 30th of October."). Despite the verdict's unprecedented size, Allen argues that analysts did not change their outlook on Halliburton's asbestos liability, and instead noted that the asbestos litigation environment was unpredictable and irrational. Allen Rep. at 90 ¶ 208 (quoting Salomon Smith Barney Report, 10/31/01) ("The disclosure . . . does not appear to signal a meaningful change in the pattern of asbestos litigation for the company . . . we recognize the unpredictability and apparent irrationality of the asbestos litigation environment in general.").

Finally, Allen found no statistically significant price reaction following the October 30, 2001 announcement, after making a Bonferroni adjustment for multiple comparisons. Allen Rep. at 90 ¶ 210; *id.* at Ex. 1. Allen also found no statistically significant price reaction on October 31, 2001, the date the press release was issued, after she made internal consistency adjustments to Coffman's model. Hr'g Tr. at 88:21-23.

Coffman argues that Allen's event study shows a statistically significant decline in Halliburton's stock price on October 31 and November 1, which coincides with Halliburton's announcement of the Mississippi verdict. Coffman Rep. at 61 ¶ 127; Hr'g Tr. at 193:10-14 (Coffman explained that the verdict was announced by Halliburton after the close of the market

on October 30). Coffman claims Allen has provided no evidence that shows Halliburton's stock was reacting to some alternative information. *Id.* To the extent Allen argues there is no price impact on these days, Coffman attributes her findings to her utilization of a multiple comparison adjustment, which he finds flawed. Coffman Rep. at 62 ¶ 128.

Coffman tested October 31and November 1, as opposed to October 28 and 29, because he argues that those were the first dates during that period that analysts and news outlets specifically talked about Halliburton's role in the Mississippi case. Hr'g Tr. at 193:20-23; Pl. Hr'g Ex. 19-20. Coffman argues that it is entirely plausible that the vast majority of market participants did not become aware of the verdict until Halliburton issued its own press release. Coffman Rep. at 62 ¶ 129. Coffman argues that many market participants may not monitor Mississippi newspapers, and it is unsurprising that those market participants might have missed the 3M announcement, because 3M is in a different industry, and the 3M announcement did not mention Halliburton by name. *Id.* Coffman argues that there were at least two analyst reports issued between the time of the article in the *Clarion-Ledger* and Halliburton's press release on the evening of October 30, neither of which mentioned the verdict. Hr'g Tr. at 193:24-194:7; Pl. Ex. 22 (Johnson Rice & Company L.L.C. Report, 10/29/01); Pl. Hr'g Ex. 23 (Deutsche Bank Alex. Brown Inc. Report, 10/29/01). In contrast, analyst reports on October 31 described the verdict as new information. Coffman Rep. at 62 ¶ 129, n.124; Pl. Hr'g Ex. 20 (Salomon Smith Barney Report, 12/31/01). Finally, Coffman argues that the two-day market capitalization decline of $539 million far exceeded the financial impact of the verdict itself, $21.25 million, which means the market was impounding additional information beyond the direct financial impact of the verdict. *Id.* at 63 ¶ 130. Coffman points out that Allen's asbestos index on those days showed

positive growth, which means that Halliburton's price decline cannot be attributed to general uncertainty about asbestos. *Id.*

The Court finds that Halliburton has met its burden and demonstrated a lack of price impact as to the announcement of the Mississippi verdict. The Court will not rule on whether the October 30 press release actually contained a corrective disclosure, for the reasons already discussed. However, the Court is persuaded that the absence of a price reaction on October 29, after the verdict had already been disclosed in a statewide newspaper, some AP wires, *and* 3M had disclosed the verdict in a press release which mentioned Dresser by name, all negates any finding of a price reaction on October 30 or 31. Public announcements preceded Halliburton's press release and, as already discussed, the Court is required to assume that the market had already absorbed that information by the time Halliburton made its own announcement on the evening of October 30. Mr. Coffman attempts to downplay the readership of the *Clarion-Ledger*, notes that the 3M announcement did not mention Halliburton by name, and argues that there was a dearth of analyst reports between the date of the *Clarion-Ledger* publication and Halliburton's own press release. Taken together, the presence of these disclosures and the absence of price impact on October 29 and 30 persuade the Court that Halliburton has showed an absence of price impact as to the October 30, 2001 press release regarding the Mississippi verdict.[37] Moreover, if Allen's internal consistency adjustments are applied to Coffman's

[37] The Court asked Ms. Allen whether there is a distinction between newspapers, and the speed in which some newspaper disclosures reach an efficient market. Hr'g Tr. at 85:20-87:5. Allen did not draw a firm distinction between a publication like the Wall Street Journal and a newspaper like the Clarion-Ledger. *Id.* However, she noted that a semi-strong market is supposed to assume that the market absorbs all public information, and here, there was a substantial overlap between 3M investors and Halliburton investors. *Id.* Mr. Coffman does not argue that the 3M announcement and associated news stories did not reach the market shortly after being released. As discussed, the 3M press release did, in fact, mention Dresser by name. *Id.* at 87:3-6.

analysis, along with the Holm-Bonferroni multiple comparison adjustment and the additional Analyst Index, there is no price impact on October 31 either, and the Court has already stated that it finds those adjustments to be appropriate. Thus, the Court finds that Halliburton has rebutted the *Basic* presumption with respect to the Mississippi verdict announced on October 30, 2001.

d. December 4, 2001

On December 4, 2001, Halliburton announced in an 8-K filing that on November 29, 2001, a Texas district court entered judgment against Dresser for its \$65 million share of a \$130 million verdict rendered on September 12, 2001 against Halliburton's subsidiary, Dresser, and another co-defendant. Allen Rep. at 86 ¶ 193, 91 ¶ 211. Halliburton also disclosed in the same 8-K filing that the same Texas district court entered three additional judgments against Dresser in favor of 100 other asbestos plaintiffs, awarding them \$35.7 million because of a breach of a settlement agreement signed earlier in the year by Harbison. *Id.* at 91 ¶ 211. The 8-K was released after the market closed on December 3 and before the opening bell on December 4. Hr'g Tr. at 176:5-6.

The earliest news story Allen could find about the September 12 verdict was a September 20, 2001 story in the *Beaumont Enterprise*, a daily paper covering Orange County, Texas, and she argues there was no statistically significant price reaction after that disclosure, despite the record size of the verdict and Halliburton's involvement. *Id.* at 86 ¶¶ 194-95. Allen also asserts that there was no price reaction to a story published on September 21, 2000 in Mealey's, which covers litigation and asbestos news. *Id.* at 86–87 ¶ 196. Her conclusions about the price reactions were based on her analysis before and after adjusting for multiple comparisons. *Id.* at 86– 87 ¶ 195; *id.* at Ex. 1. Finally, she relied on analyst commentary months later that

mentioned the absence of price reaction after the September 12, 2001 verdict. *Id.* at 87 ¶ 197. Thus, Allen argues that news reports and trade publications disclosed the verdict underlying the December 4 judgment months earlier, to no price reaction. Allen Rep. at 91–92 ¶¶ 214-15.

Allen also notes that analysts described the announcement on December 4th as widely known. *Id.* at 92 ¶ 217. As for the disclosure of judgments relating to Harbison's breach of settlement agreements, Allen argues that the 8-K disclosure was not corrective, because Halliburton had made no prior representation about these cases, the market was well aware of the possibility of adverse rulings, and analysts did not find the disclosures to be corrective. *Id.* ¶¶ 218-19.

Allen found no statistically significant price reaction after the 8-K release on December 4, both before and after adjusting for multiple comparisons, and she also found no price reaction on December 5, 2001. Allen Rep. at 91–92 ¶¶ 211, 220; Hr'g Tr. at 88:16-18. Allen found no price impact based on Coffman's model either, once she applied the internal consistency adjustments already discussed. Hr'g Tr. at 88:21-23.

In response, Coffman argues that there was in fact a stock price decline of nearly 5% on September 20, 2001, and after including his Analyst Index, there was a negative price reaction that is significant at the 90% confidence level. Coffman Rep. at 58 ¶ 119. Coffman notes that Halliburton's stock fell by $258 million, even though the verdict rendered against it was only $65 million. *Id.* With respect to the December 4 disclosure, Coffman refutes Allen's argument that the absence of a price reaction on September 20 negates a finding of price impact on December 4, and notes that the December 4 announcement and the price reaction to it were consistent with the market slowly learning more about Halliburton's asbestos liabilities as time went on, with the December 4 announcement serving as the proverbial straw that broke the

camel's back. *Id.* at 60 ¶ 123. Coffman argues that Allen fails to explain why the $35.7 million in judgments for Harbison's breach of settlement agreements was not new information or was unrelated to the Fund's claims, and the entry of judgment on the September 12 verdict signaled that the judge was not overturning the verdict. *Id.* at 64 ¶ 133. After adding the Analyst Index, Coffman found a statistically significant price decline over both one and two-day windows on December 4 and 5 at above the 99% confidence level. *Id.* at 63 ¶ 131.

The Court finds that Halliburton has met its burden of showing an absence of price impact as to the disclosures in the December 4 press release. First, the Court does not view the absence of price impact as to the September 12 jury verdict as dispositive, or even meaningfully relevant, if only because, as the Court explained during the hearing, there is an important distinction between the rendering of a verdict and the entry of a judgment. Moreover, the December 4 press release also disclosed that Halliburton would be liable for $35.7 million in judgments relating to Harbison's breach of settlement agreements, and there was no corresponding news relating to those judgments disclosed on September 20. Thus, the Court will look only at whether there was a statistically significant price reaction on December 4, 2001. If Allen's internal consistency adjustments are applied to Coffman's model, there was no statistically significant price reaction on December 4. Hr'g Tr. at 88:21-23. The Court has already explained that these adjustments are appropriate; accordingly, the Court finds a lack of price impact on December 4, 2001 and Halliburton has met its burden of rebutting the *Basic* presumption with respect to the corrective disclosure made on that date.

e. December 7, 2001

On December 7, 2001, before the market opened, Halliburton issued a press release announcing that a Baltimore jury had returned a verdict in favor of five plaintiffs against three defendants, and Dresser's share of responsibility for the verdict was $30 million. Def. App. 424 (12/7/01 Halliburton Press Release at 2); Allen Rep. at 93 ¶ 221. On that day, Halliburton's stock price dropped by approximately 40%, a decline that was statistically significant under both Coffman and Allen's models.[38] Hr'g Tr. at 91:6-10. However, Halliburton argues that the question is whether there was price impact *from the alleged misrepresentation*, not simply whether the price dropped from the announcement. *Id.* at 91:25-92:2. Accordingly, Allen concludes that there was no price impact as to the alleged misrepresentation. *Id.* at 91:19-20. Allen supports her conclusion by arguing that (1) Halliburton's stock rebounded on the next trading day, Monday, December 10, 2001, (2) the announcement did not include any new information regarding any of the alleged misrepresentations concerning Halliburton's asbestos liability, (3) analysts continued to believe Halliburton was effectively managing its asbestos liability and did not believe they had been previously misled, and (4) the price decline is more properly attributed to an increase in uncertainty, changes in the asbestos environment, and a spike in implied volatility that also affected other asbestos companies at the end of the class period. Coffman disputes each of the foregoing, and notes that Allen admitted in her deposition that she cannot attribute Halliburton's entire price decline to other factors, such as implied volatility. Coffman Rep. at 32–33 ¶ 61. Coffman argues that newly disclosed information—the

[38] Coffman explains that the "P value" for December 7, which is the probability of a false positive, is virtually zero and indicates that there is well over a 99.9 percent confidence that the stock price moved in response to the news announced on that date. Hr'g Tr. at 182:14-17.

Baltimore verdict—corrected Halliburton's previous disclosures relating to its asbestos liability, and caused the price decline on December 7. *Id.*

The Court finds that Halliburton cannot show an absence of price impact based on the December 10 price rebound, because, as already discussed, the Court will not find an absence of price impact based on the returns during Day 2 of a disclosure made on Day 1, because to do so would be inconsistent with an efficient market, which is said to digest or impound news into the stock price in a matter of minutes. *See* Fox, *supra* p. 8, at 444 n. 20. Thus, Halliburton cannot show an absence of price impact by a rebound in the stock price on December 10. Furthermore, the Court will not determine as a matter of law whether the verdict announcement was corrective.[39] Thus, the Court will focus on the analyst reports addressing the December 7 announcement and Halliburton's argument that general uncertainty in the asbestos environment caused Halliburton's statistically significant price decline.

Allen argues that none of the analysts covering Halliburton indicated after the December 7 announcement that they had been misled, but instead, the analysts continued to think Halliburton was effectively managing its asbestos liabilities. Allen Rep. at 75 ¶ 167. Analysts believed Halliburton was keeping adequate reserves, insurance would cover the verdicts, and the verdicts would be overturned or modified because Halliburton did not become involved in the

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[39] Halliburton argues that the Fund's theory—that the disclosure caused the market to realize Halliburton had been misleading it—is contradicted by the reaction, or lack thereof, to previous, larger verdicts and judgments. Allen Rep. at 94 ¶ 224. The Texas and Mississippi verdicts were larger in total and Halliburton's relative responsibility was larger, and there was no price reaction on September 20 or December 4, as already discussed. *Id.* Moreover, the Baltimore verdict disclosed on December 7 was for mesothelioma, which is always associated with greater damages awards because it is fatal and caused only by asbestos. *Id.* ¶ 225. As already discussed, the Court assumes at this class certification stage that Halliburton's disclosure was, in fact, corrective. Moreover, unlike August 9 and October 30, where information had already been disclosed to the market, to no price impact, the Baltimore verdict had not been previously disclosed.

litigation until later in the process. Allen Rep. at 95 ¶ 226. On the other hand, Coffman cites to analyst reports that discussed the Baltimore verdict as new information. Coffman Rep. at 66 ¶ 138 (PNC Report 12/7/01) ("[W]ith recent high levels of judgments against the company . . . we are concerned that [Halliburton's reserves] may prove to be low."); *id.* at 67 ¶ 139 (Hibernia Southcoast Capital Report 12/7/01) ("Halliburton's stock is trading down significantly today, as the Company announced yet another significant award against the Company for asbestos related litigation.") (JP Morgan Report, 12/7/01) ("Shares of Halliburton are down sharply . . . on the sizeable award. This is the fourth significant judgment against Halliburton since late October. The size of this claim . . . is materially higher than Halliburton's historical average cost per claim of less than $200) (ABN-AMRO Report, 12/10/01) ("Halliburton's shares plunged . . . as new negative news regarding the company's asbestos problems poured into the market") (Pl. Hr'g Ex. 18, Jeffries Report, 12/7/01) ("These are surprising developments . . . [w]e now believe that HAL'S net asbestos-related liabilities could be significantly higher than currently estimated . . . .").

Coffman also relies on an online blog, TheStreet (www.thestreet.com), which is a widely read blog run by Jim Cramer, who regularly provides investment advice on CNBC and other news outlets. Pl. Hr'g Ex. 11; Hr'g Tr. at 128:6-16. TheStreet post, titled "Halliburton Buried as Investors Stop Believing," stated that "shares dove to nine-year lows Friday [December 7, 2001] as investors lost faith in the company's claims that asbestos litigation would never catch up with it." Pl. Hr'g Ex. 11; TheStreet, "Halliburton Buried as Investors Stop Believing," http://www.thestreet.com/story/10005091/1/halliburton-buried-as-investors-stop-believing.html (last visited May 2, 2015). Allen argues that Halliburton never claimed that its asbestos litigation liabilities would never catch up with it, and TheStreet post is not an analyst report and

contains no attribution or analysis to support its quoted statements, and it is inconsistent with other analyst reports and commentary. Allen Rep. at 76 ¶¶ 169-71.

The analyst reports cited by Coffman show that the TheStreet post was not an aberration. Although some analyst reports on December 7 and 10 may have been more optimistic than others, the reports cited by Coffman and the Fund make it clear that a sufficient number of analysts viewed Halliburton's disclosure of the Baltimore verdict on December 7 as new news, and the cause of Halliburton's price decline. Thus, the analyst reports and commentary cited by Allen will not serve to refute what the parties agree was a statistically significant price reaction on December 7.

Allen argues that Halliburton's stock decline was attributed to an increase in uncertainty and change in the economic and asbestos environment that also affected other companies. Allen Rep. at 97 ¶ 229; Hr'g Tr. at 96:10-11 (noting that CBS Viacom's stock price also decreased). She notes that the stock price declines of other companies, at least in terms of market capitalization, were even larger than Halliburton's stock price decline, and market commentators discussed the price declines of Halliburton and CBS Viacom together. Allen Rep. at 102–03 ¶¶ 238-41. Allen argues there was uncertainty and volatility at the end of the class period, and when risk or uncertainty rises, stock prices fall. *Id.* at 98 ¶ 231. She notes that analysts lowered their expectations about Halliburton's stock price because of this increased uncertainty and changing market conditions. *Id.* at 99 ¶ 233; Hr'g Tr. at 96:1-3 (citing various analyst reports).

Allen claims there was a huge spike in Halliburton's implied volatility at the end of the class period, after the December 7 disclosure, yet there was no similar spike after Halliburton's disclosure of the Texas verdict or judgment or the Mississippi verdict. *Id.* at 99 ¶¶ 234-36.

Implied volatility is a measure of stock price volatility.[40] Allen also notes that companies with more pending claims had a larger drop in market capitalization and greater implied volatility following the December 7th announcement of the verdict.[41] Allen Rep. at 104–05 ¶¶ 244-45; Hr'g Tr. at 97:17-20, 103:11-14. Allen notes that Honeywell and 3M were co-defendants in the Texas and Mississippi cases that resulted in substantial verdicts and judgments, but neither experienced significant price reactions attributable to the verdicts and judgments during the class period; however, they did experience price reactions at the end of the class period. Allen Rep. at 107 ¶¶ 246-47. Dow Chemical had no disclosures, news reports, or analyst reports mentioning its asbestos liability during the class period, yet at the end of the class period through 2002, there were hundreds of news articles and analyst reports discussing its asbestos exposure. *Id.* at 112 ¶¶ 256-58. Dow Chemical nonetheless experienced a statistically significant price decline and an increase in its implied volatility at the end of the class period. *Id.* Allen argues that the price declines of each of these companies show that the stock prices of Halliburton and other

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[40] Allen explained that option prices today tell investors what the market is thinking about the variability of a stock's future price. Hr'g Tr. at 97:4-7. Implied volatility is just a measure of the market's expectation of the future volatility of a stock price at a given point in time. *Id.* at 97:7-13. For example, if an option price rises, that means there is a high demand for a fixed future price, and a concomitant worry that the price could be volatile in the future. The value of an option is bigger if there is more volatility, i.e. it is "in the money."

[41] Allen looked at an index of asbestos companies that she composed based on analyst commentary. She hypothesized that companies with more asbestos exposure would have greater reactions. Hr'g Tr. at 100:11-17. She compared the number of pending claims with the drop in market capitalization, and found that companies with more pending claims saw a larger drop in market capitalization. *Id.* at 102:6-8, 103:11-14. She argues that if the verdict was just a correction of Halliburton's prior misrepresentation, it would not make sense for these other companies also to have significant stock price declines. *Id.* at 102:12-14. However, Allen fails to address why the disclosure of the verdict could not correct an earlier misrepresentation by Halliburton, thereby impacting Halliburton's stock price, *and* adverse asbestos verdicts could also cause other asbestos companies to experience stock declines.

companies with asbestos exposure moved more closely together in 2002 than they did in 2001.[42] *Id.* at 116 ¶ 265. Thus, Allen argues that Halliburton's price decline was caused by an overall change at the end of the class period with respect to the effect of asbestos on stock prices.[43] *Id.* at 118 ¶ 271.

Coffman faults Allen for using raw dollar market capitalization to compare Halliburton to other companies over the December 7-10, 2001 period. He claims Allen's analysis is inconsistent with the rest of Allen's event study, which analyzes percentage changes, and Halliburton's relative decline is far larger than any of the other asbestos companies Allen identified. Coffman Rep. at 5–6 ¶ 10, 34–35 ¶ 65; Pl. Ex. 7-8a, Dkt. No. 591, Pl. App. 104–05. For example, CBS Viacom had a market capitalization of $85 billion, and regularly experienced changes in market capitalization of $2 billion, while Halliburton's market capitalization was only $9 billion. Coffman Rep. at 35–36 ¶ 68.

Next, Coffman argues that Allen did not adequately test her assertion that observed price changes in other companies explain a substantial portion of Halliburton's price decline, and that Coffman's analysis shows that Allen's asbestos index of 31 companies explains less than 4% of Halliburton's stock price movement on December 7. Coffman Rep. at 6 ¶ 10, 39–40 ¶¶ 75, 77;

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[42] Allen observed the relationship of 31 companies identified by analysts as having asbestos exposure in 2001 and 2002. Allen Rep. at 116 ¶ 265. She found that their relationship went from 25% during the class period to 61% after the class period, and all companies with asbestos exposure moved more tightly together after the class period. *Id.* at 116–17 ¶¶ 267-70; Hr'g Tr. at 104:4-5.

[43] Allen also asserts that the December 2, 2001 Enron bankruptcy contributed to Halliburton's price decline because it increased uncertainty at the end of the class period. Allen Rep. at 101 ¶ 237. Yet, as Coffman notes, Allen does not formally evaluate her assertion, and instead, only cites to two news reports and a single analyst report. Coffman Rep. at 44–45 ¶ 88-90. Thus, the Court is without the necessary statistical data to tie the bankruptcy to Halliburton's stock price decline. Regardless, it is unlikely that Enron's bankruptcy, which occurred five days before the December 7 announcement, would meaningfully impact the Court's analysis.

Pl. Ex. 11, Dkt. No. 591, Pl. App. 110. Coffman argues that Halliburton's stock price should have only declined 2.1% as a result of the change in the asbestos environment, given that its peers declined 2.3%, but Halliburton's stock price actually dropped 57% after controlling for Allen's other industry indices. *Id.* at 40 ¶¶ 76-77. However, Allen counters that you would not expect all of the companies to drop the same percentage amount, which is what Coffman's analysis assumes. Hr'g Tr. at 104:9-23.

Coffman also argues that greater implied volatility in Halliburton's stock price after the December 7 disclosure is a reflection of the impact of the corrective information itself, and not the cause of Halliburton's price decline, as Allen argues. Coffman Rep. at 7 ¶ 10. In other words, the corrective information created the uncertainty, and the analysts cited by Allen attributed the increased uncertainty to Halliburton's asbestos liabilities. Furthermore, Coffman argues that not all the companies in Allen's asbestos index experienced as dramatic an increase in implied volatility as Halliburton did, and Allen only focuses on a few companies to prove a point that is partially refuted by other companies in her own asbestos index. *Id.* at 43–44 ¶ 86; Pl. Ex. 13, Dkt. No. 591, Pl. App. 112. He contends that, even with respect to the companies Allen focuses on, such as Pfizer, she overstates the increase in implied volatility, which happened later and over a longer time period.[44] *Id.* at 43 ¶¶ 84-85. Allen counters that one would not expect the news to affect each company equally, and there is no reason to believe that the stock of all of the companies in her asbestos index would have a similar reaction. Hr'g Tr. at 100:1-10.

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[44] For example, Allen used a different number of days in measuring the implied volatility of different companies in her asbestos index. Hr'g Tr. at 136:3-140:24. She claims to have done so because analysts discussed the different companies over different periods of time during this alleged period of uncertainty; however, her method casts further doubt on whether an increase in implied volatility negates the substantial price decline Halliburton experienced on December 7.

Finally, Coffman rejects Allen's attempt to show lack of price impact by using Honeywell, 3M, and Dow's lack of price reaction during the class period as compared to their increase in implied volatility and price reaction at the end of and after the class period. Coffman Rep. at 46 ¶ 92. First, Coffman notes that Honeywell, 3M, and Dow's lack of price impact during the class period is unsurprising, when Allen herself admits there was no correlative news during the class period. *Id.* at 47 ¶ 93. He also argues that Dow and Honeywell's price reactions after the class period show that stock prices can and do react negatively to asbestos-related developments. *Id.* at 48 ¶ 97. Coffman further argues that a number of companies went bankrupt during the class period because of asbestos liability, a fact Allen acknowledges. *Id.* at 49 ¶ 98; Pl. Ex. 15, Dkt. No. 591, Pl. App. 114. Coffman explains that Allen is relying on a very small sample size of companies to support her sweeping conclusion. *Id.* at 49–50 ¶ 99. He argues that Allen's own report strongly supports the view that the market viewed Halliburton as an asbestos company starting on December 7, and not before, which shows that the disclosure of the Baltimore verdict on that date caused the market price to reflect that investors were no longer relying on Halliburton's misrepresentations.[45] Coffman Rep. at 53 ¶ 108.

The Court finds that Halliburton has not met its burden of showing lack of price impact with respect to the announcement of the Baltimore verdict on December 7th. Although the Court finds that at least some of Halliburton's stock price decline on that date is likely attributable to uncertainty in the asbestos environment that also impacted other companies with asbestos exposure, Halliburton has not demonstrated that uncertainty caused the entirety of Halliburton's

[45] Coffman notes that Allen's Chow test shows that after a series of negative litigation outcomes, Halliburton's stock became correlated with the asbestos index, *i.e.*, the market started treating Halliburton as an asbestos company. Coffman Rep. at 53 ¶ 108. A Chow test looks at whether relationships between variables have changed, and here, the test indicated that the market started treating Halliburton as a company with material asbestos liabilities. Hr'g Tr. at 186:24-187:9.

substantial price decline. *See* Hr'g Tr. at 183:15-21 (Coffman explaining that the change in the asbestos climate generally was only a small factor in Halliburton's price decline). The Court finds that the price impact on December 7 likely reflected the market's view of Halliburton's prior representations regarding its asbestos liability *and* increased uncertainty in the asbestos environment. *See* Hr'g Tr. at 190:18-191:3 (Coffman explaining that economic common sense suggests that a corrective disclosure can both impact Halliburton's price, along with the share prices of other companies). Allen's conclusion with respect to December 7 is that there was no price impact *as to the alleged misrepresentation*. However, at the evidentiary hearing, Allen struggled to articulate why the price impact on December 7 could not be caused by the market's realization that Halliburton knew it faced increased asbestos exposure and had concealed that fact before December 7, as alleged by the Fund. Hr'g Tr. at 126:3-127:6. The substantial price decline on December 7 and Coffman's event study show price impact as to the corrective disclosure on that date, and Halliburton has not shown that the other factors it relies upon show otherwise.

III. CONCLUSION

The Court **GRANTS in part** Plaintiffs' Motion for Class Certification, only with respect to the alleged corrective disclosure of December 7, 2001. The Motion for Class Certification is **DENIED** as to the other five corrective disclosures on which Plaintiffs rely.

SO ORDERED.

July 25, 2015.

Barbara M G Lynn

BARBARA M. G. LYNN
UNITED STATES DISTRICT JUDGE
NORTHERN DISTRICT OF TEXAS